

ABSTRACT

A system and method for determining the logic state of a memory cell in a magnetic tunnel junction (MTJ) memory device based on the ratio of the current through the cell at different bias points are disclosed. A memory cell in an MJT
5 memory device is sequentially subjected to at least two different bias voltages. The current through the cell at each of the bias voltages is measured, and a ratio of the different currents is determined. The ratio is then compared with a predetermined value to determine the logic state of the cell. The predetermined value can be a known value. Alternatively, the predetermined value can be determined by
10 application of the system and method to a reference cell having a known logic state.